

REMARKS

Applicant requests favorable reconsideration of this application in view of the following remarks. Of claims 1-16 that were pending in the application, claims 1-7 were rejected in the Office Action and claims 8-16 remain withdrawn from consideration. No amendments have been made herein and, therefore, claims 1-7 are respectfully resubmitted for further consideration.

Although no amendments are presented herein, Applicant is concurrently filing a Declaration of the inventor, Dr. Gernot von Haas. The Declaration, which is being filed after the Final Office Action and concurrent with the filing of a Notice of Appeal, is responsive to the "Material Selection and Properties" document that was first cited in the Final Office Action to bolster the Examiner's position (as later discussed). As a result, Applicant could not have submitted the Declaration earlier because the Examiner had not previously presented the reference. Accordingly, as the timeline of events clearly supports a "showing of good and sufficient reasons why the [Declaration] is necessary and was not earlier presented," the Declaration should be entered and considered. *See* 37 C.F.R. § 1.116(e).

Rejections of Claims 1-7 under 35 U.S.C. § 103

The Office Action rejected:

- (a) claims 1, 4, 6, and 7 under 35 U.S.C. § 103(a) as allegedly being obvious when considering U.S. Patent No. 5,538,676 ("Bielfeldt-I") in view of U.S. Patent No. 3,776,538 ("Beck") and U.S. Patent No. 4,933,125 ("Reiniger"); and
- (b) claims 2, 3, and 5 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Bielfeldt-I in view of Beck, Reiniger, and U.S. Patent No. 5,762,980 ("Bielfeldt-II").

Both of the above-listed rejections also rely on technical teachings set forth in: (1) a "Properties of Metal" table in the "Engineer's Edge"; and (2) a "Material Selection and Properties" document by Melles Griot. For the following reasons, Applicant respectfully traverses each of these rejections.

As previously presented, independent claim 1 (*i.e.*, the claim from which claims 2-7 depend) recites a method for the continuous manufacture of wood material boards having a textured surface on at least one side. This method includes, among other possible steps (*italic emphasis added*):

forming a mat of a wood or lignocellulose-containing material, treated with a binding agent, onto a continuously moving conveyor belt;

introducing the mat between steel belts each circulating around one of an upper and lower frame part of a continuously operating press; and

after the step of introducing the mat, curing the mat in the continuously operating press to form one of a strand of boards and an endless wood material board by applying pressure and heat to the mat,

wherein the continuously operating press comprises at least one endless metal mesh belt configured to circulate with a corresponding one of said steel belts and with the mat,

wherein the metal mesh belt comprises a material having a thermal conductivity considerably higher than that of the corresponding steel belt and having a thermal expansion coefficient approximately equal to that of the corresponding steel belt,

wherein the metal mesh belt and the corresponding steel belt are configured to pass through an insulating tunnel, in a return run, to reduce heat loss by thermal radiation,

wherein the metal mesh belt is configured to pass through a heating tunnel, which is separated from the corresponding steel belt,

wherein the heating tunnel is configured to heat the metal mesh belt to a temperature that is higher than a temperature of the corresponding steel belt by at least 40°C, and

wherein curing the mat comprises applying a specific pressure to the mat of at least 0.3 N/mm² during a first at least 80% of a pressing time.

As hereafter explained in detail, the combination of Bielfeldt-I, Beck, Reiniger, and Bielfeldt-II (when considering the teachings in the “Properties of Metal” table and the “Material Selection and Properties” document) fails to teach or suggest at least the above-italicized limitation of claim 1.

In supporting the rejection of claim 1, the Examiner relies on Beck for its cast aluminum belt and asserts that aluminum has “a thermal expansion coefficient approximately equal to that of steel.” Office Action at p. 3 (citing the “Material Selection and Properties” document). Applicant respectfully disagrees because the “Material Selection and Properties” document itself clearly disproves the Examiner’s assertion. Specifically, aluminum has a “high coefficient of thermal expansion” (*i.e.*, $24 \times 10^{-6}/^{\circ}\text{C}$) whereas steel as a “lower thermal expansion coefficient” (*i.e.*, $11 \times 10^{-6}/^{\circ}\text{C}$ to $17 \times 10^{-6}/^{\circ}\text{C}$). See “Material Selection and Properties” at p. 18.11 (underline and italic emphasis added).

As the Examiner can see, the thermal expansion coefficient of steel is 46% that of aluminum at a first end of the “Material Selection and Properties” range and only 71% that of aluminum at the second end of the range. Even at the second end of the “Material Selection and Properties” range, 71% is not “approximately equal” to 100%, as that term is used in claim 1. To support its view of the references, Applicant is concurrently filing the aforementioned

Declaration of the inventor, Dr. Gernot von Haas. As Dr. von Haas indicates, the thermal expansion coefficients for the two materials are not “approximately equal.” Rather, they are “dissimilar.” As Dr. von Haas explains:

For example, [the “Material Selection and Properties”] document itself uses different adjectives to describe the coefficient values of those two materials: that of aluminum is described as “high” while that of steel is described as “lower.” That document does not say that the two materials have thermal expansion coefficient that are “approximately equal” as required by claim 1, and a person of ordinary skill in the art would not regard those two values as “approximately equal.”

Declaration of Gernot von Haas at p. 2 (bold and underline emphasis in original).

In light of at least the foregoing reasons, it is clear that the combination of Bielfeldt-I, Beck, Reiniger, and Bielfeldt-II (when considering the teachings in the “Properties of Metal” table and the “Material Selection and Properties” document) fails to teach or suggest at least the above-italicized limitation of claim 1. Accordingly, the combination can not be used to reject claim 1, or any claim dependent thereon, under 35 U.S.C. § 103(a). Moreover, as claims 2-7 depend from claim 1, each of these dependent claims is also allowable over Bielfeldt-I, Beck, Reiniger, and Bielfeldt-II (when considering the teachings in the “Properties of Metal” table and the “Material Selection and Properties” document). Accordingly, a withdrawal of the rejections of claims 1-7 is both warranted and earnestly solicited.

CONCLUSION

For the aforementioned reasons, claims 1-7 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HEREWITH, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HEREWITH, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.